

REMARKS

Claims 20 through 36 are pending in this application. Reconsideration of this application is respectfully requested.

Certified Priority Document:

The form PTO-326 accompanying the Office action notes that none of the certified priority documents have been received. Since this application is a 35 U.S.C. § 371 National Phase of PCT/US99/30519, of which the U.S. Patent and Trademark Office is the International Examining Authority, the Office should provide a certified copy of the priority document.

Election/Restriction Requirement:

The Applicant affirms the election, with traverse, of Group I, claims 20 through 26, for further prosecution on the merits.

Group II, claims 27 through 30 at least should be examined along with Group I, since they pertain as well to a reaction occurring on a microscope slide, and should thus constitute approximately the same scope of search. Furthermore, if Group II is rejoined, then Group III, claims 31 through 36 should be rejoined as well, since the reaction chamber of claims 31 through 36 also appears in claims 27 through 30, and should thus constitute approximately the same scope of search.

Finally, examining claims 20 through 36 on the merits at once is consistent with the Patent and Trademark Office's own Patent Business Goal of compact prosecution. Withdrawal of the election/restriction requirement is earnestly solicited.

Claim Rejections - 35 U.S.C. § 102:

Claims 20, 22, 23, 25, and 27 were rejected under 35 U.S.C. § 102(b) as anticipated by Atwood et al., US 5,364,790. The rejection is traversed.

Claim 20 recites, in pertinent part:

"a portion of said coverslip is concave thereby enclosing a known volume when placed onto a microscope slide."

Atwood neither teaches, discloses, nor suggests a concave coverslip enclosing a *known* volume when placed onto a microscope slide. In Atwood, rather, a thin, generally compliant cover member 16 is placed over sample 12, as described at column 6, lines 15 and 16, column 7, lines 38 and 39, and as shown in Fig. 1. Thus, cover member 16 deforms to accommodate whatever volume of reagent happens to have been stuffed underneath, rather than enclosing a known volume as recited in claim 20.

Furthermore, in Atwood, about one drop of reagent 13, rather than a known volume as recited in claim 20, is sealed into the volume between the cover member 16 and the slide 14 by a compliant seal member or gasket around its perimeter, as described at column 7, lines 47 through 49. Thus, compliant cover member 16 stretches to accommodate a variable volume of reagent rather than enclosing a known volume as recited in claim 20.

Furthermore, Atwood notes that typically, for a circular cover about 12 mm in diameter, about 10 microliters will be contained between the cover and the slide, as described at column 8, lines 2 and 3, rather than a known volume as recited in claim 20.

Furthermore, in Atwood, the volume of reagent is chosen to be slightly larger than the volume between the concave surface of the cover 16 and a plane touching its rim 19 (the slide surface), as described at column 11, lines 59 through 62, rather than a known volume as recited in claim 20. A droplet 13 reaches and passes over the edge of rim 19 just before slide surface makes contact with the rim 19, as described at column 11, lines 63 through 65, expelling all, or nearly all the air from under cover 16.

Thus the precise volume of air will not be known, so neither will the volume of reagent left after the air is expelled, in contrast to claim 20 in which a known volume is enclosed by the coverslip. It is acceptable for a small excess volume of the reagent to spill out past the rim 19 of the cover 16, as described at column 11, lines 67 and 68. The amount of excess volume that is spilled is unknown, so there is no way to know how much reagent is left underneath the coverslip, in contrast to claim 20 in which a

known volume is enclosed by the coverslip.

Finally, in Atwood, the cover itself is compliant so that it can expand to accommodate the fixed reagent volume without a large increase in pressure, as described at column 12, lines 24 through 26. Thus, the cover slip deforms to accommodate whatever volume of reagent happens to have been left underneath, rather than enclosing a known volume as recited in claim 20. Claim 20 is submitted to be allowable. Withdrawal of the rejection of claim 20 is earnestly solicited.

Claims 22, 23, 25, and 27 depend from claim 20 and add further distinguishing elements. Claims 22, 23, 25, and 27 are thus also submitted to be allowable. Withdrawal of the rejection of claims 22, 23, 25, and 27 is also earnestly solicited.

Claim Rejections - 35 U.S.C. § 103:

Claims 21 and 26 have been rejected under 35 U.S.C. § 103 as being unpatentable over Atwood in view of the Pan et al. WO 97/07241. The rejection is traversed. Reconsideration is earnestly solicited.

Claims 21 and 26 depend from claim 20 and add further distinguishing elements. Atwood neither teaches, discloses, nor suggests a concave coverslip enclosing a known volume when placed onto a microscope slide, as discussed above with respect to claim 20. Pan does not, either. Claims 21 and 26 are thus also submitted to be allowable. Withdrawal of the rejection of claims 21 and 26 is also earnestly solicited.

Claim 24 has been rejected under 35 U.S.C. § 103 as being unpatentable over Atwood in view of the Kuan et al. US 6,181,811. The rejection is traversed. Reconsideration is earnestly solicited.

Claim 24 depends from claim 20 and add further distinguishing elements. Atwood neither teaches, discloses, nor suggests a concave coverslip enclosing a known volume when placed onto a microscope slide, as discussed above with respect to claim 20. Kuan does not, either. Claim 24 is thus also submitted to be allowable. Withdrawal of the rejection of claim 24 is also earnestly solicited.

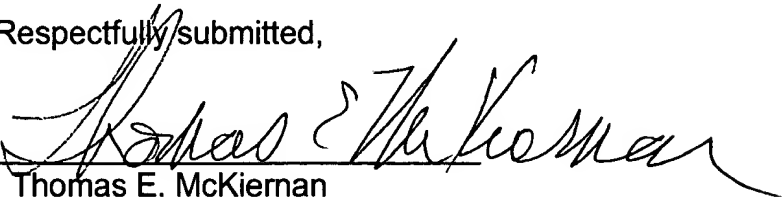
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Conclusion:

Accordingly, in view of the reasons given above, it is submitted that all claims 20 through 26 are allowable over the cited references. Allowance of all claims 20 through 26 and of this entire application are therefore respectfully requested.

Respectfully submitted,

By



Thomas E. McKiernan

Reg. No. 37,889

Attorney for Applicants

ROTHWELL, FIGG, ERNST & MANBECK

Suite 800, 1425 K Street, N.W.

Washington, D.C. 20005

Telephone: (202)783-6040

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